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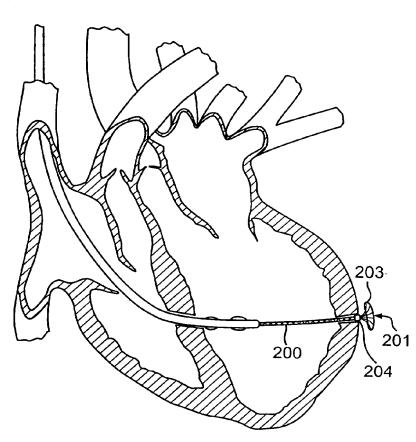
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[Continued on next page]

(54) Title: ENDOVASCULAR SPLINTING DEVICES



(57) Abstract: A method for placing a splint assembly transverse a heart chamber includes providing an elongate member having a first end and a second end and a deployable heart-engaging assembly connected to at least the first end. The method includes advancing the elongate member through vasculature structure and into the heart chamber such that the first end of the elongate member extends through a first location of a wall surrounding the heart chamber and the second end extends through a second location of the heart chamber wall substantially opposite the first location. A deployable heart-engaging assembly is deployed such that it engages with a first exterior surface portion of the heart chamber wall adjacent the first location. The elongate member is secured with respect to the heart with a second heart-engaging assembly connected to the second end. The second heart-engaging assembly engages with a second exterior surface portion of the heart chamber wall adjacent the second A splint assembly includes an expandable heart-engaging assembly formed partially from portions forming the elongate member of the splint assembly. A delivery tool includes a tubular member configured to be advanced through vasculature structure and has a curved distal end.

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nal Application No PCT/US 01/30629

A. CLASSIFICATION OF SUBJECT MATTER IPC 7 A61B17/064 A61B17/04 A61B17/00

According to International Patent Classification (IPC) or to both national classification and IPC

#### **B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  $I\,PC\,\,7\,\,$  A61B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

#### EPO-Internal

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
X	W0 00 06028 A (MYOCOR) 10 February 2000 (2000-02-10) page 30, line 19 -page 31, line 3; figures 1,2,38-43 page 34, paragraph 2 page 51, line 5 -page 54, line 18	26,34, 36-41	
X Y	WO 00 06026 A (MYOCOR) 10 February 2000 (2000-02-10) figures 7,8,20,21	26-28, 34,36,37 35	
X,P	WO 01 70116 A (MYOCOR) 27 September 2001 (2001-09-27) figures 12,13	26	
Υ	US 5 944 738 A (AMPLATZ) 31 August 1999 (1999-08-31) figures 1,2,13	35	

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Further documents are listed in the continuation of box C.	X Patent family members are listed in annex.		
"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier document but published on or after the international filing date  "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)  "O" document referring to an oral disclosure, use, exhibition or other means  "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.  "&" document member of the same patent family		
Date of the actual completion of the international search  10 April 2002	Date of mailing of the international search report		
Name and mailing address of the ISA  European Patent Office, P.B. 5818 Patentlaan 2  NL - 2280 HV Rijswijk  Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  Fax: (+31-70) 340-3016	Authorized officer  BARTON, S		

Interminal Application No
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ation) DOCUMENTS CONSIDERED TO BE RELEVANT	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
	35	
28 January 1998`(1998-01-28) figures 5,13,20 		
US 4 705 040 A (MUELLER) 10 November 1987 (1987-11-10) 		
	•	
	EP 0 820 729 A (TARGET) 28 January 1998 (1998-01-28) figures 5,13,20	



Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)				
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:				
1. X Claims Nos.: 1-25 because they relate to subject matter not required to be searched by this Authority, namely:  Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery				
2. Claims Nos.: because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:				
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).				
Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)				
This International Searching Authority found multiple inventions in this international application, as follows:				
see additional sheet				
As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.				
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.				
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:				
4. X No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  26-28, 34-41				
Remark on Protest  The additional search fees were accompanied by the applicant's protest.  No protest accompanied the payment of additional search fees.				

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 26,27,28,35; also 34,36-41

Cardiac splint assembly with braided elongate member

2. Claims: 26,29-33

Cardiac splint assembly with collapsible ring as anchoring device

3. Claims: 42-47; also 48,49,51-56

Transventricular splint delivery tool with balloon support structure

4. Claims: 42,48-50

Transventricular splint delivery tool with bilateral wire support structure

formation on patent family members

Interponal Application No PCT/US 01/30629

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